

ABSTRACT

Method for the automated production of liquid SO_2 having a purity above 99.9% from elemental sulfur and pure oxygen, in the presence of SO_2 recirculated from the closed circuit production system itself. The temperature of the sulfur is controlled by means of pre-defined S, O_2 and SO_2 ratios. The automation is made based on oxygen sensors and on sulfur and SO_2 flow meters with their respective control connections and proportional valves permitting a fine control of the sulfur combustion reaction. The liquefaction of the gaseous SO_2 produced is carried out alternatively by a cool plant working between -10 and -60°C or with a compression unit working at a pressure between 3.8 and 5.0 bar. The automation permits an optimum temperature control and a clean production of SO_2 .

AMALIA MUÑOZ DE LA PEÑA

06-01-2003